

# Volumetric Drawing: The Marriage of Forced Flatness with Dimensional Objects

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When I was younger, I had two prevalent interests in life. The first was to draw all over any surface I came in contact with, and the second was to work in the power plant down the street from my house one day. I am sure that many children, and likely adults, feel a similar urge to draw when blank walls surround them everyday. The interest in power plants, factories, and the like originated from my childhood desire to explore a kind of building that contrasted starkly with any of those that constituted the typical routine. Additionally, I was fascinated with the wide array of machinery I assumed lay behind the walls. These buildings were unique, visually captivating, and established a surreal atmosphere in my mind that, upon retrospect, an actual visit would never achieve. This mind-scape likely provides the groundwork for why I have chosen drawing as my means of expression as opposed to photography. The real factory could never live up the expectations of how my mind perceives its mystery and atmosphere. Needless to say, while my interest in both areas has evolved substantially, I reflect on this particular flashback as a means of substantiating the reasons why I have opted to create the work I have over the last two years. Essentially, I am trying to say that the premise of my work evolved from a long-standing urge as opposed to a fleeting decision based on one or two projects I carried out over the course of last year. Granted, the visage and thematic nature of the work has proven more complicated than its inception, however, I feel that it is important for me to address the origin of my ideas.

Moving onto the work itself, my art currently centers around two concepts: the industrial as an architectural facade, and the effect of planes and volumes on drawing. These two concepts developed for different reasons, and only recently came together in my research project. In order to explain how these two concepts function, I feel it is imperative for me to chronicle their evolution.

In terms of imagery, my work draws from the industrial as a consequence of my lifelong obsession with these structures. Industrial spaces utilize simplistic geometric forms that are often

repeated a multitude of times throughout the units. The resulting structure produces a dazzling lattice of line and form nestled in a relatively small volume. Amidst the beauty of the repetitive geometry, there exists an equally complex array of light bouncing off the unnatural earth tones of rusted steel surfaces. A unique atmosphere is born of the lights, steam, and shadows, and elicits an air of combined mystery and danger.

Unlike typical architecture, these buildings are built for purely utilitarian purposes, namely that of repurposing resources into consumable objects. Placing my own visual and imaginative drive aside, I am drawn to these places because of their harsh truth regarding people. Factories and pipes exist as a narcissistic stand-in for nature. As a whole, humanity feels that the natural world has fallen behind in its capacity to satiate man's appetite for an object driven existence. As a result, people build these places in order to fulfill their own perception that an artificial world provides the next step in content existence. In other words, perceived happiness based on the ability to rely on unnatural objects to direct their daily lives. Essentially, these places act as an architectural representation of humanity at large. Architecture often offers a more truthful glimpse into one's state of being as architectural theorist, Beatriz Colomina states in her book, *Privacy and Publicity: Modern Architecture as Mass Media*, "it will be necessary to think of architecture as a system of representation, or rather overlapping systems of representation" as opposed to a singular module devoid of representational capabilities."<sup>1</sup> In other words, architecture is as much an abstract conceptual object as painting or poetry. Any time human hands construct an object, they are automatically imbued with a conscious or subconscious trait of the creator. Typically, this line of thinking is limited in scope to unique creations. However, what happens when one introduces an aesthetically and conceptually sterile utilitarian structure? Factories were not created in order to explore aesthetic formalities or question a social issue. Instead, they exist to introduce an unnatural product into the world.

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1 Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media*. (MIT Press), 13.

Therefore, if one is to understand architecture as a “primarily social mechanism”<sup>2</sup> where “buildings could calmly speak of what [goes] on behind their walls,”<sup>3</sup> then one could perceive structures as a type of portraiture for those who reside in them.

Factories lack any permanent residency, however, their status as this nature repurposing center speaks volumes about those it represents, namely humanity. Industrial areas are a portrait of the modern man: his narcissism and reluctance to accept what he is naturally allotted amidst his need to construct a society around artifice in order to feel at home. Nature makes man uneasy due to its threatening imposition and the fact that man has been unable to completely control its assets. Therefore, man creates a plastic kingdom constructed in his image in an attempt to reconstitute the natural order as he sees fit. Factories are scorned because of the filth oozing from their bowels and their unattractive gaze, however, without them the human world would cease to exist. In a sense, a symbiotic relationship develops wherein the factory and the human become dependent on one another in order to maintain their plasticized existence.

The idea of the architectural portrait manifested itself most prominently in the print work made under the guise of the research project. These works consist of carved linoleum blocks, and provided an important stepping stone in the process of combining my ideas of architecture, portraiture, and perspectival collapse. As printmaking possesses historically close ties to the tradition of illustration, these works are much more literal in nature. Their purpose was that of displaying the symbiotic relationship between man and the industrial world he enacts for himself. Much of the imagery is referential of utilitarian places, and additionally has been stylized in a manner that implicates futurist aesthetic and architectural ideas as a social norm. Futurists actively embraced the culture of war, industry, and utilitarianism. Specifically, the architects were content to limit themselves to the prospects of factories as their primary influential choice.

All buildings were proposed to be made of concrete, steel, and glass with the intention of

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2 Colomina, 39.

3 Colomina, 33.

rendering the factory as the staple of society. The intention of my prints was the follow in line with these ideals in addition to pushing the importance of the relationship between man and his dystopian industrial paradise. Therefore, where my cylinders and large scale installation drawings approach the relation of man and the industrial in a more abstracted sense, the printed works exist to offer a much more direct interpretation of my conceptual material.

Additionally, the prints also deal with other, more formal issues pursued in the drawing based works. Each of these works consists of three different perspectival spaces. For instance, in the image of the man's face hovering above a sewer, the perspective utilized in his facial rendering contradicts both the sewer in addition to the city resting withing the pipe's mouth. The conflicting spatial arrangements are intentional, and riff off of the awkward illusionistic construction of the wrapped pipe drawings. Similar to the imagery of these objects, the spatial notions of the print begin to collapse in a strange but controlled manner. The purpose of this exercise is to manipulate the capabilities available to a two-dimensional representation of a three-dimensional space. An actual space could not exist with three competing angles of existence, however, a flat drawing enacts the capacity to contain an infinite number of juxtaposed spaces and perspectives.

While the print work lacks the volumetric aspect of the installation work, I still feel they are important to the development of this project. Not only did they permit for a more literal outlet for me to explore my conceptual notions regarding the industrial as a visage, but they also acted as a bridge for the final piece. As prints are a means of mass producing an image, it became viable to wrap a greater number of pipes with already fixed imagery. As a result, the pipes no longer remained these precious art objects, but instead became a mass produced product of sorts. This unintended side effect produced an even greater relationship between the objects made and the conceptual nature of the factory. The introduction of the prints introduced a mechanical prospect to the work that permitted its ability to rapidly accumulate numbers as opposed to

conform to limitations of the hand made. As the factory eases the production process of a mass consumable, it also eased my ability to create a large number of objects.

The planar drawing exists as a result of a project I produced for an earlier drawing class. Only one parameter constrained the piece: create a drawing that somehow integrates one of the classroom tables. My natural instinct was to turn the table into a canvas for a drawing. Stemming from a similar place as that of my urge to turn any surface into an image, I wrapped the table in paper and utilized the project as a means of exploring how the imagery changed when confronted with the five planes of the table. Specifically, I was interested in how the drawing reacted when it went over corners, or when the imagery of one plane disrupted that of another. I was pleased with the results, and felt that the concept merited further attention. As a result, I envisioned this research opportunity as a means of further exploring the potential of the idea. In my original proposal, I laid the groundwork for an exploration of wrapped objects warping the imagery of their surfaces. The initial writing proposed accumulating objects—both large and small—and covering them in paper in an effort to test the juxtaposition of volumetric objects and perceptually volumetric spaces. Specifically, the imagery was to be tailored to architectural and perspectival work in order to capitalize on the distinction between an actualized object and a two dimensional representation of a realistic space. As tables possessed many architectural effects, it appeared logical that the imagery and the objects would easily establish a dialogue that extended beyond the pretense of object with a drawn surface. Originally, the objects were to consist of larger pieces, such as tables, chairs, and desks; however, the actual surfaces ended up being smaller.

A later speaker, whose talk I attended, caused me to reconsider a number of aspects about the relationship between the second and the third dimension. Specifically, he instilled an awareness of the distinction and limitations of the two dimensions that had not been considered previously. The idea that the two dimensional space consisted of a limited interpretation of the

third dimension proved fundamentally important for future consideration. A drawn image can replicate attributes of volume, however, perspective offers the only means of attempting to recreate volume. Perspective, therefore, is fundamentally flawed as its buildings recede into space at a point that eventually vanishes. Perspective distorts the size and reality of the object it wishes to capture as it cannot accurately account for spatial volume. This realization accounts for my decision to begin rendering spaces with contradicting perspectives in both the earlier and later research pieces.

While tables and chairs were to be the initial surfaces upon which to draw, pipes became the actual wrapped canvases. This is due in part to the fact that pipes are a material that typically compose much of the industrial building. A combination of wires and tubes lie beneath the metal frame of most machines, and oil refineries are a specific type of factory that is almost entirely composed of varying sized tubes. Additionally, most industrial interiors are unremarkable architecturally save for their network of cables, pipes, and machines. Therefore, it would appear that the choice to work with both tubular imagery and actual pipe work proves solid.

These pipes were covered with perspectival imagery drawn from the pages of books laden with interior industrial landscapes. Small portions of an image were appropriated and then woven into an impossible space. While the space clearly could not exist, its referential images combined with the architectural imagery causes one to still recognize the area as a potentially actualized place. More importantly, however, was the pipe's effect on the drawing. Specifically, the thin, rounded nature of the object torqued the image in such a way that it negated any of the perspectival efforts of the drawn image. Where a table's flattened surface still merits some degree of normality to a rendering due to its rectangular nature, the pipe's constant curvature disrupts the illusionary capabilities of a realized space. Shadows were cast along the length of the object—contradicting the drawn shadows—while the purportedly straight lines forcibly curved along the circumference of the object. All in all, the rounded volume of the pipe aggressively exposed the

limitation of the second dimension's capability to describe reality. The bottom of the piece, however, proved to be the most important aspect of the work. While the imagery on the side of the pipe was technically mashed together from source material, it still maintained some semblance of structure and placement. The bottom panel, however, lacked the same attention to detail as its counterpart. As a result, a completely different variety of spatial collapse occurred. The spatial network of this tiny piece was entirely random, drawing its only premise from the lines that fed into it from above. For me, this unexpected consequence resulted in the most interesting and consequently important piece of the work.

As mentioned before, my work consists of two distinct goals, which, while similar, were unequally emphasized in the print and sculptural work. In order to equalize and combine my focus, I opted to borrow the most important elements of each respective process in order to create a large installation that combined the efforts of the flat and the volumetric object. As the prints allowed for an infinite number of pipes to be wrapped, it became apparent that the most logical solution to the issue of consolidation was to utilize the volumetric pipes as a starting point to produce the randomized spatial collapse present on the bottom of the earlier wrapped work. In doing so, a drawing based on the premise of a planar shift would emerge with an emphasis on how a drawing translates when shifting from a volumetric image to a flattened illusion. Additionally, in order to achieve a similar effect to the random collapse of perspectival space, it was important to introduce a system in which the flat drawing would rely on the wrapped drawing in order to exist. As a result, I decided that I would utilize the lines in the places where the pipe touched the paper as a means of mapping the the final drawing.

The introduction of print into the process also enabled the freedom of wrapping the pipes in any desired manner. The multitude of printed images made it possible to create abstracted collages of imagery over the surface of the pipes instead of maintaining the illusionistic qualities of the wrap. Mashing the printed imagery together offered another instance of collapsing space.



Once again, an illusionistic source material is utilized in the process of undermining the necessity of reality in the two-dimensional space.

While the original intention was to continue the imagery of the wrapped print onto the paper, it became obvious that a better choice consisted of drawing a series of pipes originating from the source lines. The reason why I chose pipes and beams as opposed to towers and large machinery was the relationship of these materials to the infrastructure of the building in addition to its connotation to the human form. Pipes and beams represent the guts of architecture. Without these objects, a building becomes a husk or a pile of rubble. Additionally, much of the lovely geometry of industrial places is perpetrated on behalf of these structures. The use of such simple objects permits the induction of a lattice as the imagery of the work. The randomization of the process engenders a chaotic juxtaposition of objects in space, however, the geometric limitations of the straight-edged inorganic structures forms a sense of rational entropy. Chaos is undone as space and object intersect in a crystalline manner that betrays its initially uncouth perception. Also, the size of pipes and their organization posses a reflective aspect to the human body. The imagery instills a sense of a strange skeleton or circulatory system or perhaps a massive pile of limbs connecting with one another. While not overly emphasized, the visual relationship between the images and the body are important for maintaining the portraiture aspect of my work.

Another means of spatial collapse present in the piece exists in the form of the piecemeal construction of the drawing. As this larger work deals entirely with the aspect of process—and in order to create an overgrowing environment—utilizing the procedure of fastening together sheets of paper over the course of the drawing's growth became a necessity. Each new sheet offered a new border with new potential for the drawing. In certain areas, the imagery crosses over the borders while in other areas it is stopped in an effort to provide the illusion of the object venturing below the flap. Paper placement allows for a new kind of optical struggle to take place within the confines of the image. For instance, along certain exterior borders the drawing

struggles against edge of the image attempting to break free and continue its unchecked growth into the space of the viewer. In other places, the pipe work halts short of the outer edge of the drawing resting within the confines of its flat prison. The resulting effect is an anxiety inducing struggle between this human sized, awkward place that wishes to throw itself into the viewer's spatial bubble, and its less anxious ability to be quelled within its own limitations. The physical size of the piece imparts the duality of an inviting spatial experience wherein it beckons one into its interiors while conversely inflicting the terror of a place attempting to swallow the viewer in its logical chaos. The piece is meant to engage the viewer's space and induce some degree of mental discomfort as my source material typically imparts a sensation of fear or disapproval in the majority of people who view industrial spaces. Factories are daunting facilities that are responsible for major pollution and health risks, and carry out their tasks without recourse to their negative consequences.

Another important formal aspect of the piece is its graphic line quality. Much of my previous work to this point utilizes the graphic line or band as a means to illustrate my chosen facilities. In this particular work, it was chosen as a way to simplify an already complicated space in addition to reference architectural drawings. In order to carry out my intended goal of producing a semi-recognizable space possessing the desired geometric aspects, it was more logical for me to work in exaggerated graphic lines as opposed to organic, painterly ones. One of the primary purposes of the work is to manipulate the perspectival limitations of the illusionistic drawing, therefore an abstract rendering was less desirable. Additionally, this piece was less about the body's direct relationship to the industrial—which would benefit from softer, more organic forms—and more about the transition of similar imagery from one plane to another. In order to maintain a direct relationship between the volumetric source drawing, it is important to establish a referential dialogue between the rendering between the two elements. Additionally, the architectural notion of the piece benefits from a drawing style reminiscent of drafting.

All of the pieces mentioned, particularly the large scale installation, exist as a progression of one another. For instance, while the goal of the work was integrating the perspectival space into the volumetric object, the flat prints were equally as important as the earlier cylindrical drawings. Every step of the work aided in the contribution of elements in the final piece. The completion of the larger piece prompted many thoughts of future projects regarding similar thematic material. As the process of the larger piece proved fulfilling, it is likely that I will continue to attempt my hand at making these larger space activating works. Specifically, I believe my next step will be to start trying to construct actual spaces in order to explore the atmospheric effects of industrial rooms. Working sculpturally also offers a number of possibilities in terms of toying with the notions of perspective. I hope to reverse the roles of this last cluster of projects, and form a three-dimensional space that possesses two-dimensional aspects.

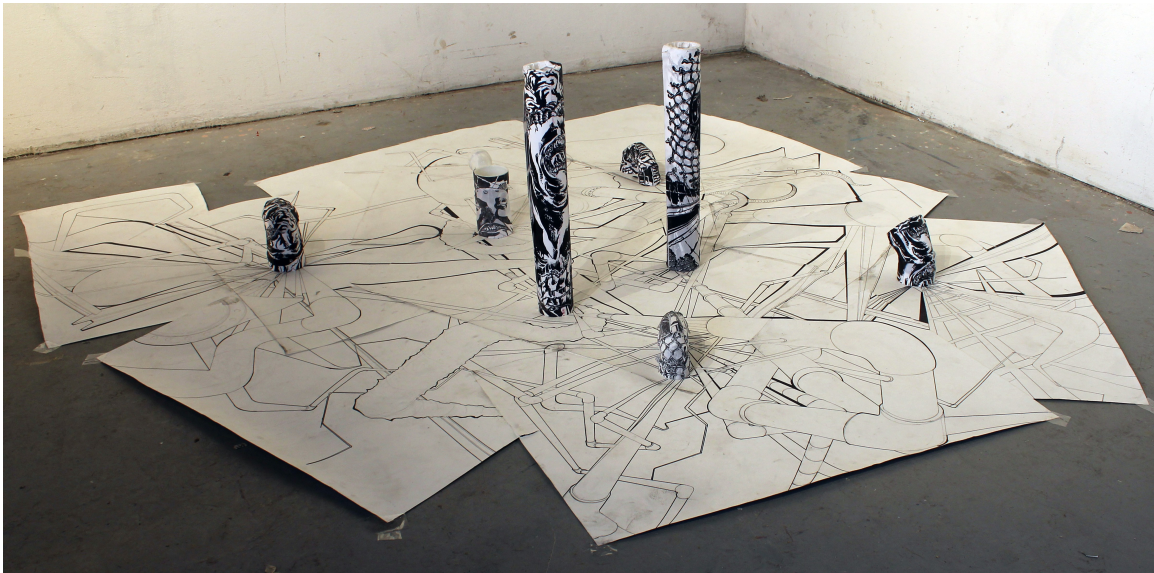
## Works Cited

Colomina, Beatriz. *Privacy and Publicity: Modern Architecture as Mass Media*. Cambridge: MIT Press, 1996. Print.

## Appendix

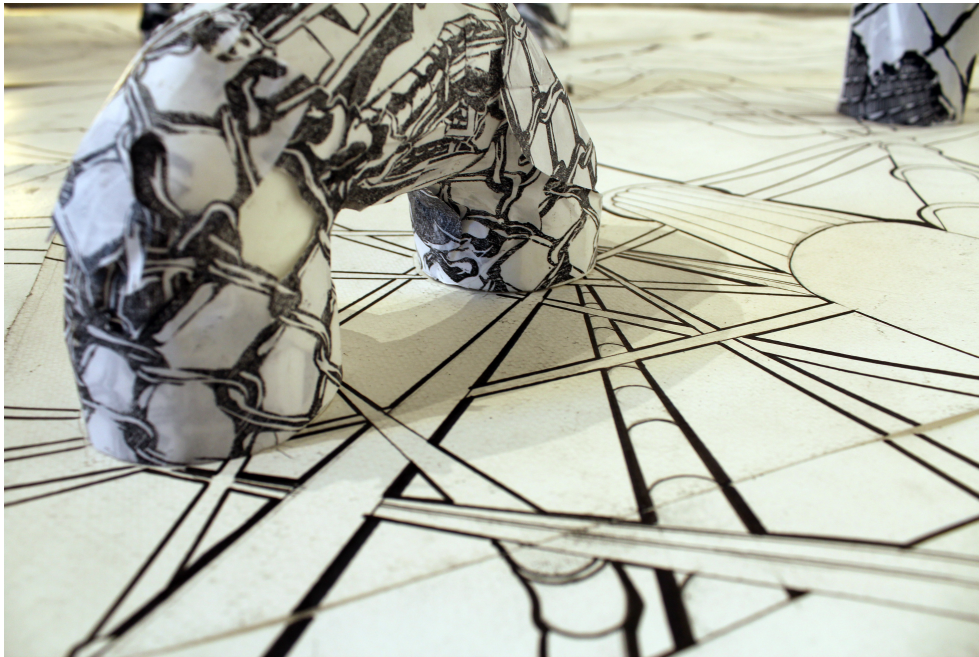


*Liminal Reactor Disposition System*  
Wrapped paper and ink on metal pipe  
2011



*Untitled*  
PVC pipe with wrapped linoleum prints and ink on paper  
2012

Appendix Continued



Detail of *Untitled*

PVC pipe with wrapped linoleum prints and ink on paper  
2012